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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/553,259

07/24/2006

Ewald Schneider

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08/06/2009

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EXAMINER

ADMASU, ATNAF S

ART UNIT

PAPER NUMBER

1796

NOTIFICATION DATE

DELIVERY MODE

08/06/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/553,259	Applicant(s) SCHNEIDER, EWALD	
	Examiner ATNAF ADMASU	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 May 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-18 are pending as amended on 28 May 2009.
2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed 28 May 2009 has been entered and fully considered.
3. The text of those sections of Title 35, US Code not included in this action can be found in a prior Office Action.

Response to Amendment and Arguments

4. Applicant has amended claims 1, 12 and 18, filed 28 May 2009, reciting that the moulding composition "consisting essentially of" the components recited in the pending claims, rather than "comprise" such components; however, there is nothing in the specification or claims of the instant invention that exclude any component from prior arts of US Patent 5,773,556 (Kleiner hereinafter) and US Patent 5,071,924 (Koch hereinafter). For the purposes of searching for and applying prior art under 35 U.S.C. 102 and 103, absent a clear indication in the specification or claims of what the basic

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and novel characteristics actually are, "consisting essentially of" will be construed as equivalent to "comprising." See, e.g., *PPG*, 156 F.3d at 1355, 48 USPQ2d at 1355."

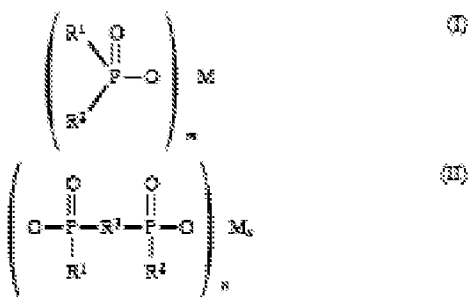
5. Applicant's further arguments have been fully considered but are not persuasive.

Applicant argues that Kleiner teaches the use of non-aromatic polyamide (e.g., nylon 6, nylon 66) and Koch teaches the use of a specific blend of polyamides and thus both Kleiner and Koch teach away from the invention recited in the pending claims; however, Kleiner teaches a composition of non-aromatic polyamide with phosphonate flame retardant and Koch teaches a composition of partially crystalline semi-aromatic polyamide with red phosphorous flame retardant. At the time of the invention, it would have been obvious to a person of ordinary skill in the art to exchange Kleiner's non-aromatic polyamide with semi-aromatic polyamide of Koch's flame retardant composition in order to provide increased heat distortion resistance.

Claim Rejections - 35 USC § 103

6. Claims 1 - 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kleiner et al. (US 5773556) in view of Koch et al. (US 5071924).

Kleiner et al. teach a molding composition comprising a polyamide and a phosphoric acid salt of the formula (I) and/or a diphosphoric acid salt of the formula (II)



Where

R^1 and R^2 are identical or different and are C_1 - C_{16} -alkyl,

R^3 is C_1 - C_{10} -alkylarylene, linear or branched, arylene, alkylarylene, arylalkylene,

M is a calcium or aluminum ion;

m is 2 or 3; n is 1 or 3; x is 1 or 2 (see column 1, lines 40 - 64).

Kleiner et al. teach the molding material comprising a polyamide and a phosphinic or diphosphinic acid salt of the metals calcium or aluminum (see column 1, lines 65 – 67).

Kleiner et al. teach the amount of phosphinic acid salt added to the polymers is preferably 10 to 25% by weight (see column 3, lines 3 – 10 and claim 4).

Kleiner et al. teach the polyamide molding material can also comprise fillers and reinforcing materials, minerals, dyes, stabilizers, lubricants, molding aids and other customary additives (see column 4, lines 4 – 9).

Kleiner et al. teach the polyamide molding materials have the following useful applications: electrical components, such as coil formers, transformers, relays, switches, plug connectors, motors and motor parts (see column 3, lines 56 – 67).

Furthermore, the property shown in the claim 13 is an inherent property.

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Kleiner et al. differ from the present invention in that the polymeric material used in the molding composition is not based on semi-aromatic and partly crystalline polyamides.

Koch et al., on the other hand, in "Thermoplastic molding materials based on polyamide blends" disclose that in amide polymers in which some of the aliphatic units have been replaced by aromatic units and are partly crystalline polyamines with melting points of the of 260°C to above 300°C (column 3, lines 30 – 34). The polyamide concentration ranges from 20 to 98% by weight (Abstract). The partly aromatic amide copolymers contain units derived from terephthalic acid and hexamethylenediamine. A small proportion of the terephthalic acid can be replaced by isophthalic acid (col. 2, lines 28 – 36) Koch further discloses the composition include conventional additives such as stabilizers in amount of not more than 10% by weight (col. 8, lines 47 – 52). Koch further discloses the polyamide components were melted, extruded and granules were injection molded to produce moldings (col. 10, lines 49 - 57).

At the time of the invention, it would have been obvious to a person of ordinary skill in the art combine Kleiner's calcium or aluminum phosphonates with Koch's partly crystalline polyamides to obtain flameproof polyamide molding composition. The rationale to do so would have been the motivation provided by the teaching of Koch that to do so would provide not only good heat distortion resistance but also good rigidity and a generally good property profile (col. 1, lines 64 – 68).

Koch and Kleiner do not expressly disclose the molded articles fulfill the requirement according to the UL 94-flammability classification of VO found test pieces with a thickness of 0.4mm.

It is noted, however, that the variation of the compositions of the various components of the partly crystalline polyamides combined with the phosphonic acid salts in order to produce moldings that fulfill the requirement of the UL 94 flammability classification VO at 0.4mm in order to obtain the optimum performance would be obvious to one of ordinary skill in the art. "Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation" (*In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955)).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ATNAF ADMASU whose telephone number is (571)270-5465. The examiner can normally be reached on M-F 8:00-5:30, Flexible Schedule.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 571-272-1498. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

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Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ASA/

/Timothy J. Kugel/
Primary Examiner, Art Unit 1796